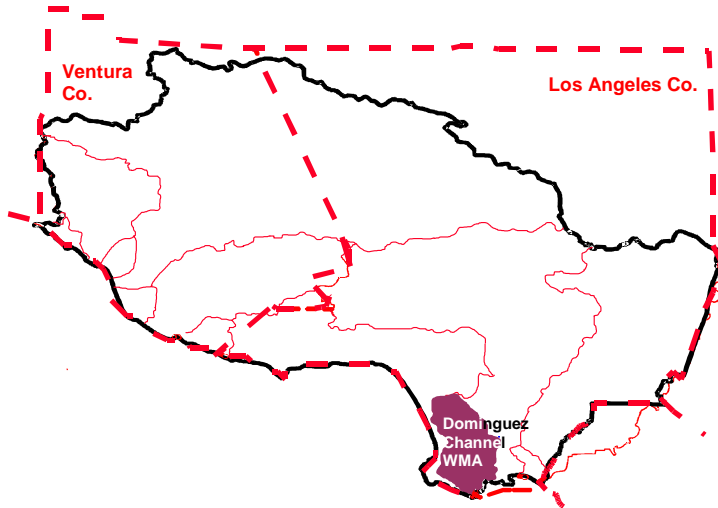


## DOMINGUEZ CHANNEL AND LOS ANGELES/LONG BEACH HARBORS WMA

This watershed will be targeted for permitting purposes in FY02/03.

### Overview of WMA



The Los Angeles and Long Beach Harbors are located in the southern portion of the Los Angeles Basin. Along the northern portion of San Pedro Bay is a natural embayment formed by a westerly extension of the coastline which contains both harbors, with the Palos Verdes Hills the dominant onshore feature. Historically, the area consisted of marshes and mudflats with a large marshy area, Dominguez Slough, to the north, and flow from the Los Angeles River entering where Dominguez Channel now drains. Near the end of last century and during the beginning of this one, channels were dredged, marshes were

filled, wharves were constructed, the Los Angeles River was diverted, and a breakwater was constructed in order to allow deep draft ships to be directly offloaded and products be swiftly moved. The Dominguez Slough was completely channelized and became the drainage endpoint for runoff from a highly industrialized area. Eventually, the greater San Pedro Bay was enclosed by two more breakwaters and deep entrance channels were dredged to allow for entry of ships with need of 70 feet of clearance. The LA/LB Harbor complex together is now one of the largest ports in the country.

Both harbors are considered to be one oceanographic unit. Despite its industrial nature, contaminant sources, and low flushing ability, the inner harbor area supports fairly diverse fish and benthic populations and provides a protected nursery area for juvenile fish. The California least tern, an endangered species, nests in one part of the harbor complex. Some wetlands do persist in the Machado Lake area.

Similar to LA Inner Harbor in many respects, LB Inner Harbor is dissimilar to the other Port in the higher number of privately-owned waterfront parcels which the Port has recently been in the process of the buying up and converting to Port-related uses, generally container terminals. Also, basins and slips in LB Inner Harbor are somewhat more separated from each other than in LA Inner Harbor which may possibly prevent contamination from spreading easily.

#### **Beneficial Uses in WMA**

##### Dominguez Channel (above estuary)

Noncontact water recreation  
Preservation of rare &  
endangered species

##### Dominguez Channel (in estuary)

Contact & noncontact water recreation  
Preservation of rare &  
endangered species  
Industrial water supply  
Navigation  
Commercial & sportfishing  
Marine habitat  
Estuarine habitat  
Wildlife habitat  
Migratory & spawning habitat

The outer part of both harbors (the greater San Pedro Bay) has been less disrupted and supports a great diversity of marine life. It is also open to the ocean at its eastern end and receives much greater flushing than the inner harbors.

### **Water Quality Issues and Problems**

A POTW discharges secondary-treated effluent to the outer LA/LB Harbor and is under a time schedule order to remove the discharge. The discharger's plan consists of achieving full reclamation (mostly for industrial reuse purposes) by 2020 which would eliminate the discharge completely. They plan on achieving about 80% reclamation by 2005. Two generating stations discharge to the inner harbor areas. Many smaller, non-process waste discharges also occur into the harbors and Dominguez Channel drains a highly industrialized area of the city resulting in very poor water quality.

#### **Permitted discharges:**

- Ten major NPDES discharges: one POTW, two generating stations, and six refineries; 58 minor discharges; 62 discharges covered by general permits
- 424 dischargers covered under an industrial storm water permit
- 115 dischargers covered under the construction storm water permit

#### **Types of permitted wastes discharged into the Dominguez Channel WMA:**

Nature of Waste <i>Prior</i> to Treatment or Disposal	# of Permits	Types of Permits
Nonhazardous (designated) contaminated groundwater	1 4	Major General
Nonhazardous (designated) contact cooling water	2	Minor
Nonhazardous (designated) wastes from dewatering, rec. lake overflow, swimming pool wastes, water ride wastewater, or groundwater seepage	1 6 26	Major Minor General
Nonhazardous (designated) noncontact cooling water	2 4 1	Major Minor General
Nonhazardous (designated) process waste (produced as part of industrial/manufacturing process)	1	Minor
Nonhazardous (designated) stormwater runoff	2 34	Major Minor
Hazardous noncontact cooling water	1	Major
Hazardous contaminated groundwater	6 6	Minor General
Hazardous stormwater runoff	2	Major
Nonhazardous (designated) washwater waste (photo reuse washwater, vegetable washwater)	1	Minor
Nonhazardous (designated) domestic sewage	1	Major
Nonhazardous (designated) filter backwash brine waters	2	Minor
Nonhazardous wastes from dewatering, rec. lake overflow, swimming pool wastes, water ride wastewater, or groundwater seepage	5	General
Nonhazardous filter backwash brine waters	1	General
Nonhazardous contaminated groundwater	1	General
Inert wastes from dewatering, rec. lake overflow, swimming pool wastes, water ride wastewater, or groundwater seepage	14	General

**Hazardous** wastes are those influent or solid wastes that contain toxic, corrosive, ignitable, or reactive substances (prior to treatment or disposal) managed according to applicable Department of Health Services standards

**Designated** wastes are those influent or solid wastes that contain **nonhazardous** wastes (prior to treatment or disposal) that pose a significant threat to water quality because of their high concentrations

**Nonhazardous** wastes are those influent or solid wastes that do not contain soluble pollutants or organic wastes (prior to treatment or disposal) and have little adverse impact on water quality

**Inert** wastes are those influent or solid wastes that do not contain soluble pollutants or organic wastes (prior to treatment or disposal) and have little adverse impact on water quality

Major discharges are POTWs with a yearly average flow of over 0.5 MGD or an industrial source with a yearly average flow of over 0.1 MGD and those with lesser flows but with acute or potential adverse environmental impacts.

Minor discharges are all other discharges that are not categorized as a Major. Minor discharges may be covered by a general permit, which are issued administratively, for those that meet the conditions specified by the particular general permit.

About one-half of the 141 NPDES discharges to Dominguez Channel; the rest go to the LA/LB Harbor complex.

Of the 424 dischargers enrolled under the general industrial storm water permit in the watershed, the largest numbers are located in the cities of Gardena, Wilmington, Torrance, and Carson, along Dominguez Channel. Warehousing, auto wrecking, and metal plating are a large component of these businesses. About half of the facilities are greater than one acre in size and about 80 of them are larger than 10 acres.

There are 115 sites enrolled under the construction storm water permit. The majority are along Dominguez Channel and are commercial sites; about a quarter of them occur on sites of larger than ten acres.

Two areas within Los Angeles Harbor are considered to be toxic hot spots under the BPTCP: Dominguez Channel/Consolidated Slip, based on sediment concentrations of DDT, PCB, cadmium, copper, lead, mercury, zinc, dieldrin, chlordane (all exceed sediment quality guidelines), sediment toxicity, and degraded benthic infaunal community; and Cabrillo Pier area,

**Potential sources of pollution:**

- Historical deposits of DDT and PCBs in sediment
- Discharges from POTW & refineries
- Spills from ships and industrial facilities
- Leaching of contaminated groundwater
- Stormwater runoff

based on sediment concentrations of DDT, PCB and copper, sediment toxicity and issuance of a human health (fishing) advisory for DDT and PCB in white croaker and exceedances of National Academy of Science guidelines for DDT in fish and shellfish. Several locations have been listed as sites of concern under the BPTCP: Inner Fish Harbor, due to sediment concentrations of DDT, PCB, copper, mercury and zinc and sediment toxicity (not

recurrent); Kaiser International, due to sediment concentrations of DDT, PCB, PAH, copper and endosulfan; Hugo Neu-Proler, due to PCB sediment concentrations; Southwest Slip, due to sediment concentrations of DDT, PCB, PAH, mercury, and chromium, and sediment toxicity (not recurrent); Cerritos Channel, due to sediment concentrations of DDT, PCB, metal, chlordane, TBT, sediment toxicity and accumulation in mussel tissue; Long Beach Outer Harbor, due to sediment concentrations of DDT and chlordane and sediment toxicity (not recurrent); and West Basin, due to sediment concentrations of DDT and PCB, sediment toxicity (not recurrent) and accumulation in clam tissue. There is need for further monitoring in all of these areas to clarify their status. Potential sources of these materials are considered to be historical deposition, discharges from the nearby POTW (especially for metals), spills from ships and industrial facilities, as well as stormwater runoff. Many areas of the harbors have experienced soil and/or groundwater contamination, which may result in possible transport of pollutants to the harbors' surface waters. Dredging and disposal of contaminated sediments and source control of pollutants in the harbors will be a major focal point for the Contaminated Sediment Task Force.

**Los Angeles Inner Harbor**

Although the area is dramatically cleaner now than twenty-five years ago, parts of LA Inner Harbor are still suffering the effects of historic deposits of pollutants in the sediment and current point and nonpoint source discharges. Fish caught in the East Basin have exhibited histopathological abnormalities (liver lesions). The abnormalities are indicative of aromatic and chlorinated hydrocarbon contamination. There is also significant degradation in the biological community of a part of Inner Harbor with high levels of PCB and DDT; and toxicity of the surface water microlayer of one part of the harbor to a test fish species (larval kelp bass).

Additionally, Cal-EPA's Office of Environmental Health Hazard Assessment now advises against consumption of white croaker in the harbor and recommends no more than one meal every two weeks of black croaker, queenfish, and surfperches if caught in the harbor. On the other hand, the benthic community in many other areas of the inner harbor are healthy and sediments, though high in many pollutants, do not cause a great deal of toxicity in controlled lab tests.

LA Inner Harbor is on the 1998 303(d) list due to DDT, metals, PAHs, chlordanes, TBT, and PCBs. Some of the contamination in sediment is historic with resuspension potential. Dominguez Channel was the recipient of runoff from the Montrose Chemical Facility which manufactured DDT for several decades until the early 1970s. There are also mostly nonpoint source inputs from several problem sites, spills, and storm drain runoff. The problems tend to be exacerbated by the poor circulation and flushing. The Port is in the process of filling in a large part of Outer Harbor and deepening some channels as part of their "2020 Plan". Pier 400, a 590-acre site of new land created by diking and filling harbor waters, was completed in April 2000. As a result, the potential exists for greater stagnation and more problems from deposition of new contaminants.

Data from the State Mussel Watch (SMW) Program have documented high levels of metals, PCBs, TBT, and PAHs in mussel tissue at several locations in LA Inner Harbor. The Bay Protection and Toxic Cleanup Program (BPTCP) has found a number of inner harbor areas with elevated pollutant levels but a smaller number of those have exhibited sediment toxicity.

Sediment data collected by Regional Board staff, the Port of LA, and various other researchers, have revealed several areas of heavy contamination with metals, PCBs, and DDT, and occasionally PAHs. Regional Board data show that the level of contamination within particular regions of the inner harbor vary considerably from site to site. Additionally, it is difficult to separate the effects of historic contamination from current inputs. Bight'98 included samples within harbors, including a number of stations in LA/LB Harbor; toxicity, sediment chemistry, and benthic data reports should be available early in 2002.

### *Dominguez Channel*

Little recent data exist for the Channel itself even though considerable heavy industrial facilities (including the old Montrose site) are located within the watershed. However, a consultant for Montrose conducted sediment sampling for DDT in the Channel during 1990. EPA, in a letter to Montrose, cited this data and provided a comparison of those values with NOAA's "identified concentrations of DDT in sediment associated with adverse impacts. A sediment level of 3 ppb was associated with adverse impacts in 10% (ER-L) of the data reviewed by NOAA and a level of 350 ppb total DDT was associated with adverse impacts in 50% (ER-M) of the data reviewed by NOAA" (EPA letter to Montrose Chemical Corporation, November 27, 1991). The consultant found DDT levels of 300 - 13,000 ppb in the Channel. EPA stated that adverse impacts in the biological community of Dominguez Channel and Consolidated Slip would be expected.

A Regional Board study conducted in 1975 found that the aquatic biota of the Channel were largely marine in origin and were a continuation of LA Inner Harbor biota. The number and abundance of aquatic species declined with distance inland from the harbor. A fairly abrupt decline in benthic species between Alameda and Wilmington Streets was attributed to the effects of pollution. *Capitella capitata* was one of the most abundant benthic species in the area and is generally associated with polluted areas. An absence of benthic fish species adjacent to one oil refinery was considered to be indicative of oxygen-poor bottom water. There was a degraded benthic community at several stations in Consolidated Slip during BPTCP sampling.

Of major concern in the mid-1980s was discharge of zinc chromate as an additive in cooling water/boiler blowdown. There may have been some justification for that concern. Sediment sampling conducted by Regional Board staff in 1988 revealed zinc levels as high as 447 ppm, chromium as high as 67 ppm, and lead as high as 231 ppm.

### *Long Beach Inner Harbor*

While historic contamination is a definite problem in the older parts of the harbor (including the naval base), Pier J has only recently been constructed, utilizing some highly contaminated dredge material. Some other likely problem sites include: Cerritos Channel with its inputs at times from Consolidated Slip, a creosote manufacturing site, several oil terminals, a defunct ship repair yard (and several active ones), and the naval base, which is closed, while the attached shipyard remains open.

Contamination in the LB Inner Harbor is known to be sporadic. Little information is available on contamination in Southeast Basin except for TBT water concentrations of up to 380 PPT found in a 1988 statewide study of harbors and low levels of PCBs found in mussel tissue in 1986. The most recent SMW data for the Inner Harbor show some areas of elevated DDT, most notably at those stations located in or near Cerritos Channel.

Moderate PCB levels were found in mussel tissue in front of the creosote facility located in Channel 2 and somewhat higher levels were found in Cerritos Channel which is likely related to its proximity to Consolidated Slip and other LA Harbor point and nonpoint sources. Long Beach Inner Harbor is on the 1998 303(d) list for DDT, PAHs, and PCBs, while San Pedro Bay is listed for DDT, PAHs, PCBs, and some metals.

The table below gives examples of typical data ranges which led to the listings.

**IMPAIRMENTS:**

Impairments	Applicable Objective/Criteria	Typical Data Ranges Resulting in Impairment	303(d) Listed Waters/Reaches
Benthic comm. effects	Basin Plan narrative objective		Dominguez Channel Estuary (to Vermont) Los Angeles Harbor: Consolidated Slip Long Beach Harbor (part. Main Ch., SE Basin, West Basin, Pier J, and breakwater)
ChemA* (tissue)	National Academy of Science Guideline (tissue): 100 ng/g		Dominguez Channel Estuary (to Vermont) Dominguez Channel (above Vermont) Machado Lake (Harbor Lake)
chlordan (sediment & tissue)	Basin Plan narrative objective	100 ng/g (sediment)	Dominguez Channel Estuary (to Vermont) Dominguez Channel (above Vermont)
	State Board numeric objective (tissue): Max. Tissue Residue Level 1.1 ng/g	5.0 - 11.3 ng/g (tissue)	Los Angeles Harbor: Consolidated Slip Machado Lake (Harbor Lake)
DDT (sediment & tissue)	Basin Plan narrative objective	500 - 1,500 ng/g (sediment)	Dominguez Channel Estuary (to Vermont) Dominguez Channel (above Vermont)
	State Board numeric objective (tissue): Max. Tissue Residue Level 32.0 ng/g	36 - 227 ng/g (tissue)	Los Angeles Harbor: Consolidated Slip Los Angeles Harbor (part. Main Ch., Fish Hbr, Cabrillo Pier, and breakwater) Long Beach Harbor (part. Main Ch., SE Basin, West Basin, Pier J, and breakwater) Cabrillo Beach (Inner) San Pedro Bay nearshore and offshore zone: Cabrillo Pier area Los Angeles Harbor: Southwest Slip Machado Lake (Harbor Lake)
PCBs (sediment & tissue)	Basin Plan narrative objective	500 - 1,000 ng/g (sediment)	Dominguez Channel Estuary (to Vermont) Dominguez Channel (above Vermont)
	State Board numeric objective (tissue): Max. Tissue Residue Level 2.2 ng/g	42.5 - 90.7 ng/g (tissue)	Los Angeles Harbor: Consolidated Slip Los Angeles Harbor (part. Main Ch., Fish Hbr, Cabrillo Pier, and breakwater) Los Angeles Harbor: Southwest Slip San Pedro Bay nearshore and offshore zone: Cabrillo Pier area Cabrillo Beach (Inner) Long Beach Harbor (part. Main Ch., SE Basin, West Basin, Pier J, and breakwater) Machado Lake (Harbor Lake)
aldrin (tissue)	State Board numeric objective (tissue): Max. Tissue Residue Level 0.33 ng/g		Dominguez Channel Estuary (to Vermont) Dominguez Channel (above Vermont)
dieldrin (tissue)	State Board numeric objective (tissue): Max. Tissue Residue Level 0.7 ng/g	0.9 - 2.1 ng/g (tissue)	Dominguez Channel Estuary (to Vermont) Dominguez Channel (above Vermont) Machado Lake (Harbor Lake)
sediment toxicity	Basin Plan narrative objective		San Pedro Bay nearshore and offshore zone: Cabrillo Pier area Los Angeles Harbor: Southwest Slip Los Angeles Harbor: Consolidated Slip Los Angeles Harbor (part. Main Ch., Fish Hbr, Cabrillo Pier, and breakwater) Long Beach Harbor (part. Main Ch., SE Basin, West Basin, Pier J, and breakwater)
PAHs (sediment)	Basin Plan narrative objective	2,000 - 15,000 ng/g (sediment)	Dominguez Channel (above Vermont) Dominguez Channel Estuary (to Vermont) Los Angeles Harbor: Consolidated Slip Los Angeles Harbor (part. Main Ch., Fish Hbr, Cabrillo Pier, and breakwater) Long Beach Harbor (part. Main Ch., SE Basin, West Basin, Pier J, and breakwater) San Pedro Bay nearshore and offshore zone: Cabrillo Pier area
Chromium (sediment)	Basin Plan narrative objective	100 - 200 ug/g (sediment)	San Pedro Bay nearshore and offshore zone: Cabrillo Pier area Dominguez Channel (above Vermont) Dominguez Channel Estuary (to Vermont) Los Angeles Harbor: Consolidated Slip

\* ChemA refers to the sum of the chemicals aldrin, dieldrin, chlordane, endrin, heptachlor, heptachlor epoxide, HCH (including lindane), endosulfan, and toxaphene

Impairments	Applicable Objective/Criteria	Typical Data Ranges Resulting in Impairment	303(d) Listed Waters/Reaches
Zinc (sediment & tissue)	Basin Plan narrative objective	150 - 510 ug/g (sediment) 110 - 510 ug/g (tissue)	Los Angeles Harbor: Consolidated Slip Dominguez Channel (above Vermont) Dominguez Channel Estuary (to Vermont) Los Angeles Harbor (part. Main Ch., Fish Hbr, Cabrillo Pier, and breakwater) San Pedro Bay nearshore and offshore zone: Cabrillo Pier area
Lead (sediment)	Basin Plan narrative objective	120 - 122 ug/g (sediment)	Los Angeles Harbor: Consolidated Slip Torrance Carson Channel Dominguez Channel Estuary (to Vermont) Dominguez Channel (above Vermont) Wilmington Drain
Copper (sediment)	Basin Plan narrative objective	110 - 140 ug/g (sediment)	Los Angeles Harbor (part. Main Ch., Fish Hbr, Cabrillo Pier, and breakwater) Wilmington Drain Dominguez Channel (above Vermont) Torrance Carson Channel Dominguez Channel Estuary (to Vermont) San Pedro Bay nearshore and offshore zone: Cabrillo Pier area
algae, eutroph.	Basin Plan narrative objective		Machado Lake (Harbor Lake)
odors	Basin Plan narrative objective		Machado Lake (Harbor Lake)
ammonia	Basin Plan narrative objective		Machado Lake (Harbor Lake) Wilmington Drain Dominguez Channel (above Vermont) Dominguez Channel Estuary (to Vermont)
	Basin Plan numeric objective: varies depending on pH and temperature but the general range is 0.53 - 2.7 mg/l of total ammonia (at average pH and temp.) in waters designated as WARM to protect against chronic toxicity and 2.3 - 28.0 mg/l to protect against acute toxicity	ND - 18.0 mg/l	
tributyltin	Basin Plan narrative objective	2,000 ng/g (tissue)	Los Angeles Harbor: Consolidated Slip Los Angeles Harbor (part. Main Ch., Fish Hbr, Cabrillo Pier, and breakwater)
coliform	Basin Plan numeric objective: Inland: fecal coliform not to exceed log mean of 200 mpn/100ml in 30-day period and not more than 10% of samples exceed 400 MPN/100ml Beaches: total coliform not to exceed 1,000 MPN/100ml in more than 20% of samples in 30 days and not more than 10,000 MPN/100ml at any time	33 - 160,000 MPN/100ml	Dominguez Channel (above Vermont) Dominguez Channel Estuary (to Vermont) Torrance Carson Channel Wilmington Drain
beach closures	Basin Plan narrative objective	2 - 11 days/year closed	Los Angeles Harbor (part. Main Ch., Fish Hbr, Cabrillo Pier, and breakwater) Cabrillo Beach (Inner)
Trash	Basin Plan narrative objective		Machado Lake (Harbor Lake)

\* Chem A refers to the sum of the chemicals aldrin, dieldrin, chlordane, endrin, heptachlor, heptachlor epoxide, HCH (including lindane), endosulfan, and toxaphene

**CURRENTLY SCHEDULED TMDLS:**

<b>Type of TMDL</b>	<b>303(d) Listed Waters/Reaches</b>	<b>Year Scheduled for Completed (FY)</b>
coliform	Dominguez Channel Dominguez Channel Estuary Torrance Carson Channel Wilmington Drain	02/03
coliform	Cabrillo Pier area Cabrillo Beach (inner)	02/03
metals	Los Angeles Harbor: Consolidated Slip Los Angeles Harbor: Main Channel Torrance Carson Channel Dominguez Channel Estuary (to Vermont) Dominguez Channel (above Vermont) Wilmington Drain	06/07

**We see a need for an additional 1.1 PY as well as \$50,000 in contract dollars for FY02/03 TMDL work conducted in this watershed.**

**Stakeholder Group**

The *Dominguez Channel Watershed Advisory Council* was formed in February 2001 and meets on a monthly basis to conduct a variety of tasks including development of a Watershed Management Master Plan aimed at protecting and improving the environment and beneficial uses of the watershed. Proposition 13 funding (\$200,000) was approved by the State Water Resources Control Board for the LA County Department of Public Works to work on a watershed plan. Many members of the group are also participating in Regional Board TMDL work in the watershed. Monitoring will be a major early activity. Subcommittees have been formed to concentrate on selecting a consultant to begin writing the watershed plan, to deal with detailed technical issues, and to pursue additional funding. A website for the group is in development.

**Current Activities**

The following is a summary of current regional board activities in the Dominguez Channel Watershed which are expected to continue as part of the Watershed Management Initiative on a watershed basis.

**CORE REGULATORY**

Continuing core regulatory activities that will be integrated into the watershed management approach include (but are not limited to) necessary renewal/revision of NPDES permits. This will be a targeted watershed for the bulk of permit renewal purposes in FY 2002-03. Many permits (refineries, in particular) are being renewed this year because of backlog issues, however. There are eleven major dischargers, 65 significant or minor dischargers under individual permits, as well as 37 dischargers currently covered under general permits (additional information on permits may be found in the Appendix). Compliance inspections, review of monitoring reports, response to complaints, and enforcement actions relative to the watershed's NPDES permits will continue. A watershed-wide regional monitoring program will be created in anticipation of the next cycle. Due to limited resources, only the basic regulatory activities are performed: review of dischargers' monitoring reports, minimum necessary inspections and sampling, issuance/ renewal of permits, levels 1 and 2 enforcement actions (noncompliance and violation notification), case handling, and answering inquiries from the public.



The Dominguez Channel Watershed Management Area falls within Los Angeles County which has been covered by a municipal storm water permit since 1990. The third five-year permit was adopted on December 13, 2001. This permit covers Los Angeles County and all the incorporated cities, except the City of Long Beach, which was issued a separate municipal storm water permit in 1999. The Los Angeles County Flood Control District is the Principal Permittee. Under the requirements of the permit, the Permittees will implement the Storm Water Quality Management Plan which includes the following components: (a) Program Management; (b) Public Information and Participation Program; (c) Industrial/Commercial Facilities Program; (d) Development Planning Program; (e) Programs for Construction Sites; (f) Public Agency Activities; and (g) Illicit Connection/Illicit Discharge Elimination Program. These programs collectively are expected to reduce pollutants in storm water discharges to the maximum extent practicable. In addition, the County will conduct a storm water monitoring program to estimate mass emissions and toxicity of pollutants in its waters, evaluate causes of toxicity, and several other components to characterize storm water discharges and measure the effectiveness of the Storm Water Quality Management Program. The permit can be downloaded from the Regional Board Storm Water website at <http://www.swrcb.ca.gov/rwqcb4/html/programs/Stormwater/stormwater.html>.

An important requirement of both the Los Angeles County and the City of Long Beach municipal storm water permits is implementation of the Standard Urban Storm Water Mitigation Plans (SUSMPs) and numerical design standards for Best Management Practices (BMPs), which municipalities began implementing in February 2001. The final SUSMP was issued on March 8, 2000, and amended in the permit, adopted on December 13, 2001. The SUSMP is designed to ensure that storm water pollution is addressed in one of the most effective ways possible, i.e., by incorporating BMPs in the design phase of new development and redevelopment. It provides for numerical design standards to ensure that storm water runoff is managed for water quality and quantity concerns. The purpose of the SUSMP requirements is to minimize, to the maximum extent practicable, the discharge of pollutants of concern from new and redevelopment. The requirements are very similar to the Ventura County SQUIP.

The numerical design standard is that post-construction treatment BMPs be designed to mitigate (infiltrate or treat) storm water runoff from the first ¾ inch of rainfall, prior to its discharge to a storm water conveyance system. Other standards also apply; additional information on the SUSMP may be found on the Regional Board Storm Water website at [http://www.swrcb.ca.gov/rwqcb4/html/news/susmp/susmp\\_details.html](http://www.swrcb.ca.gov/rwqcb4/html/news/susmp/susmp_details.html).

#### *MONITORING AND ASSESSMENT*

In anticipation of the need for preparation of a State of the Watershed Report during the permit renewal time period, the Board's regional database's charting and mapping capabilities will be utilized to begin an assessment of available water and sediment quality information.

The BPTCP has identified two areas in the harbors as "toxic hot spots" based on sediment contamination. Staff have completed a cleanup plan for these areas; this plan is part of the Consolidated Plan for the state's toxic hot spots approved recently by State Board. Cleanup/remediation alternatives identified include dredging, in-situ capping, and treatment; however, dedicated funding has not been provided by the state for cleanup actions. Continuing Regional Board activities include working to insure cleanup of contaminated land sites which may affect harbor waters, issuance of waste discharge requirements, where appropriate, and control/treatment of stormwater runoff. Of those areas identified as candidate sediment toxic hot spots, there is about 25,000 to 50,000 cubic yards of contaminated sediments in the Cabrillo Pier area; removal by dredging and disposal would cost 0.5 to \$5 million; however, remediation there

isn't recommended until Consolidated Slip contaminated sediments are cleaned up. The Consolidated Slip/Dominguez Channel area has about 50,000 cubic yards of contaminated sediments and would take \$1 to 5 million to dredge. More sampling would be needed prior to any dredging in order to develop a detailed dredging plan. Also, post-remediation monitoring would be needed. This area is part of an EPA-designated Superfund site and EPA is working with the Montrose Chemical Corporation to try and reach a settlement for damages due to DDT-contaminated runoff from the Torrance manufacturing facility.

This watershed will be the focus of SWAMP monitoring for FY01/02. The WMA has been divided into six subareas based on characteristics of the area in order to simplify sampling design: (1) headwater streams, (2) the inner and outer harbors of LA and LB, (3) Madrona Marsh, (4) Machado Lake, (5) the Dominguez Channel estuary, and (6) the upper channelized Dominguez Channel above normal tidal influence. The sampling design is still under development, however, if funding constraints are not restrictive, each of the six areas will be sampled to fill in the incomplete data relevant to each area. For example, information on Machado Lake water quality is outdated and the lake is posted for fishing, therefore, studies will include fish tissue analysis in conjunction with water column chemistry and toxicity, sediment chemistry and toxicity, and pathogens. A different sampling strategy will be undertaken for the LA/LB harbor complex. Sampling there will include five weeks of coliform and pathogen testing in the summer and winter, water column toxicity and chemistry, metals chemistry, PAH analysis, and potential TIEs. The ability to break down this watershed into subareas based on characteristics of the area identified allow staff to devise sampling plans and monitor for constituents in relation to each area. The focus will be on a randomized probabilistic sample design as modeled after the USEPA's EMAP program, especially for the harbor area. The triad approach (toxicity, chemistry, and benthic community) will be utilized where possible.

#### *NONPOINT SOURCE PROGRAM*

Staff will pursue starting a general stakeholder group in the watershed to address nonpoint source issues. Staff have performed inspections of commercial fishing operations in the Los Angeles Harbor area and educated personnel regarding negative impacts of discharges to the harbor. Since these inspections, staff have initiated some enforcement actions.

#### *BASIN PLANNING*

Basin Planning activities will include continued participation in both internal and external watershed planning efforts and further incorporation of watershed management and principles and watershed-specific priorities into future updates of the Basin Plan, where appropriate.

Several high priority issues were identified in the 2001 Triennial Review which affect this watershed management area and will require Basin Planning resources. As in all watersheds, adopting TMDLs as Basin Plan amendments is required under the Consent Decree with an estimated resource need of 0.5 PY/TMDL. This is considered a currently funded activity. Another task identified by the 2001 Triennial Review which can be accomplished at current funding levels involves evaluating specific proposals for changes to beneficial uses. The top one to three beneficial use revisions would then be addressed over the next three years at 0.1 PY/addition. There are a number of beneficial uses that have been suggested for inclusion with those for Machado Lake including warmwater habitat, wildlife habitat, contact recreation, and noncontact recreation. A suggested addition to the Dominguez Channel estuary beneficial uses list is shellfish harvesting.

Comments on watershed issues in CEQA documents for the highest priority projects will continue to be prepared; this is currently an unfunded program.

### **Near-term Activities**

Specific resource needs are described in the Region-wide Section of this document.

Permits in this watershed will be renewed in FY 2002/03. Continuing core regulatory activities include compliance inspections, review of monitoring reports, response to complaints, and enforcement actions as needed relative to the watersheds NPDES permits. A watershed-wide regional monitoring program will be created in anticipation of the next cycle.

A preliminary review of resources for core regulatory activities against cost factors has determined that our region is seriously underfunded for our baseline program. We will be seeking more funding for our core program activities.

The Dominguez Channel and Los Angeles/Long Beach Harbors WMA, as the targeted watershed in FY 02/03, will need **staff resources (0.75 PY/year) to collect, analyze, and store data for a State of the Watershed Report and TMDL development.**

We will maintain involvement with stakeholder activities and pursue funding options, especially those involving implementation of nonpoint source measures (coordinate 205(j) and 319(h) activities) as well as other outreach activities such as speeches, meetings, and participation in environmental events. As resources permit, we will also work with stakeholders to implement provisions of the Coastal Zone Act Reauthorization Amendments.

### **Potential Mid- to Long-term Activities**

As may be the case in other industrial areas with extensive sediment contamination, development of regional sediment quality guidelines would be very valuable. The CSTF is developing an electronic database of relevant local sediment monitoring data to be used for this purpose. Development of sediment quality guidelines should be completed by January 2003. Basin Planning efforts may be focused on better defining beneficial uses in the area and implementing the State Bays and Estuaries Plan adopted in 2000. We also anticipate discharger requests for development of site-specific objectives for a number of constituents that will be included in the new Bays and Estuaries Plan. An assessment of existing data will be needed as part of this task.

Additional long-term activities include:

- Development of a watershed-wide monitoring program
- Consideration and implementation of TMDL-related issues
- Further evaluate beneficial uses throughout the watershed
- Restoration of habitat following improvements in water quality
- Implementation of biological monitoring
- Development of sediment quality objectives (unfunded 2001 Triennial Review high priority)
- Explore options for, and implement, sediment cleanup/removal